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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,172	08/28/2003	Peter Simonson	D4669-US	5964
42716	7590	04/18/2007	EXAMINER	
MAINE & ASMUS			HOANG, PHUONG N	
P. O. BOX 3445			ART UNIT	
NASHUA, NH 03061			PAPER NUMBER	
			2194	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/18/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/650,172

Applicant(s)

SIMONSON ET AL.

Examiner

Phuong N. Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 3, 6 - 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 3, 6 - 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/3/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Claims 1 – 3, 6 – 28 are pending for examination.

***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/18/07 has been entered.

***Claim Rejections - 35 USC § 101***

3. Claim 18 - 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
4. As to claim 18, the language of independent claim 18 is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a useful, concrete and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

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5. As to claim 19, this is the dependent claim of claim 18. It does not support the deficiency of the claim 18. It is rejected for the same reason above.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 1, 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The following terms lack proper antecedent basis:

- i. said physical device – claims 1, 18.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**9. Claims 1 – 3, 6 –28 are rejected under 35 U.S.C. 102(e) as being anticipated by Reynolds, US pub. no. 2003/0126195.**

**10. As to claim 18,** Reynolds teaches a system for the control of a software component operating on a software based framework, said system comprising:

A field programmable physical device (programmable device, 0720, 0723, 0771, 0776), said soft component (0149) being configured to be deployed and executed upon the physical device;

a capability object (interface abstraction, abstract and 0796) deployed on a device object (device objects, 0288, figures 1 and 35 and associated text) corresponding to a physical device as programmed by a user or the software component;

said capability object comprising: at least one base instance object; at least one communication object; and at least one engineering object (0288, 0796, figures 1 and 35 and associated text).

**11. As to claim 19,** Reynolds teaches wherein said physical device is at least one physical device chosen from the group of physical devices consisting of programmable

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devices, general purpose processors, specialized circuits, and field programmable gate arrays (field programmable gate arrays, programmable devices, 0720, 0723, 0771, 0776).

12. **As to claims 20 - 24**, Reynolds wherein said base instance is configured to provide deployment, control, and behavior control activities, communication (abstract and 0796).

13. **As to claim 25**, Renolds teaches the communication instance object, a engineering instance object, and base object being independently replaceable (the interface abstraction work independently without having to modify the command interface, abstract and 0796).

14. **As to claim 26**, Reynold teaches a system for distributed processing, said system comprising:

a distributed processing framework (distributed system, figures 1 – 3 and associated text);

a plurality of processors (processors, figures 181 – 18n and associated text) interfaced with said framework;

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a client application software (clients software, figure 2c-2j) communicating with said framework;

at least one of software component (device drivers, 0149) deployed on said plurality of processors;

each said processor executing said software components (the interface abstraction work with all network devices, each having a processor);

each said software component controlling a programmable device via an adaptation layer (interface abstraction, abstract and 0796);

said adaptation layer comprising an adaptation layer interface (interface abstraction, abstract and 0796), at least one device object (device object, 0288, 0771, 0776) at least one capability object deployed on said device object, said device object having a physical device interface object; and said capability object and said physical device interface being independently replaceable.

15. **As to claim 27**, see rejection for claim 19 above.

16. **As to claim 28**, Reynolds teaches wherein a plurality of said software components may be deployed on each said processor (each device has each processor, 0149).

17. **As to claim 1**, this is the system claim of claim 26. See rejection for claim 26 above. Further, Reynolds teaches at least one software component interface having at least six service interfaces comprising a deployment service interface, a communication service interface, a control service interface, and a component behavior control interface (interfaces, abstract and 0009, 0374, 0431, 0435, 0436, 0323, 0975, 0976) communicating with said adaptation layer interface;

18. **As to claim 2**, see rejection for claim 27 above.

19. **As to claims 3 – 7**, Reynolds teaches wherein said at least one software component interface comprises at least six service interfaces (interfaces, abstract and 0009, 0374, 0431, 0435, 0436, 0323, 0975, 0976).

20. **As to claims 8 - 9**, Reynolds teaches wherein said at least one physical device is interfaced to a general purpose processor (figures 2 – 3).



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21. **As to claims 10 - 11**, Reynolds teaches wherein said physical device interface object controls said physical device independently from a functionality performed by said physical device (abstract and 0009, 0374, 0431, 0435, 0436, 0323, 0975, 0976).

22. **As to claims 12 - 13**, Reynolds teaches wherein said physical device is replaceable (card replaced, 0750, 0753).

23. **As to claim 14**, Reynolds teaches wherein said capability object is replaceable (abstract).

24. **As to claim 15**, Reynolds teaches wherein said capability object provides activities for compliance with a software network, said activities comprising: deployment; control; behavior control; establishment of connections for communications; communication and data transfer; and data sampling and output (0009, 0374, 0431, 0435, 0436, 0323, 0975, 0976).

25. **As to claim 16**, Reynolds teaches wherein said capability object comprises: at least one base instance object; at least one communication object, having a

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communication instance object; and at least one engineering object, having an engineering instance object (0288, figures 1 and 35 and associated text).

26. **As to claim 17**, Reynolds teaches wherein said base instance object, said communication instance object, and said engineering instance object are replaceable (abstract).

### ***Conclusion***

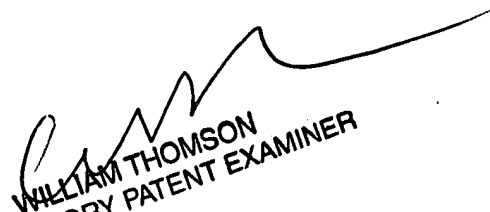
27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ph  
April 15, 2007

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER